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(FILE 'HOME' ENTERED AT 12:46:23 ON 27 MAR 2008)

FILE 'HCAPLUS, INSPEC, JAP10, USPATFULL, USPATOLD, USPAT2' ENTERED AT 12:46:23 ON 27 MAR 2008

L1 602726 S (SINGLE OR MONO) (8A) (CRYSTAL?)  
L2 258408 S (SOLID(W)PHASE#)  
L3 191864 S (SOLIDIFICAT?)  
L4 645 S (INTERFACE) (8A) (THERMAL(W)GRADIENT#)  
L5 13713 S (HEAT? OR ANNEAL?) (8A) (LIQUID(W)PHASE#)  
L6 1012133 S (ELECTROMAGNET?)  
L7 22338 S (FIRST OR PRIMARY) (8A) (GAS(4A)PRESSURE#)  
L8 20643 S (SECOND?) (8A) (GAS(4A)PRESSURE#)

=> s l1 and l2 and l3 and l4 and l5 and l6 and l7 and l8

L9 16 L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7 AND L8

=> d l9 1-16 abs,bib

L9 ANSWER 1 OF 16 USPATFULL on STN

AB A device for manufacturing a single-crystal solid phase by solidification of a liquid phase, comprising: a crucible capable of containing the solid phase and the liquid phase, the liquid phase being in contact with the crucible and the solid phase being separated from the crucible by an interstice; and a heating mechanism for heating the liquid phase capable of creating a thermal gradient at the level of an interface between the liquid phase and the solid phase, electromagnetic field generation, distinct from the heating mechanism, for applying an electromagnetic pressure on the junction surface of the liquid phase at the level of the interface comprising at least one spiral surrounding the crucible, and placed opposite to the area in which the interface forms in operation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2007:318418 USPATFULL

TI Method and Device for Producting Monocrystals

IN Duffar, Thierry, Grenoble, FRANCE

Fournier-Gagnoud, Annie, St Ismier, FRANCE

PI US 2007277729 A1 20071206

AI US 2005-587368 A1 20050217 (10)

WO 2005-US5055 20050217

20070507 PCT 371 date

PRAI FR 2004-50177 20040130

DT Utility

FS APPLICATION

LREP PLEVY, HOWARD & DARCY, P.C., P.O. BOX 226, Fort Washington, PA, 19034, US

CLMN Number of Claims: 4

ECL Exemplary Claim: 1

DRWN 2 Drawing Page(s)

LN.CNT 271

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 2 OF 16 USPATFULL on STN

AB An in situ process for treating a hydrocarbon containing formation is provided. The process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed

to transfer from the reaction zone to a part of the formation such that heat from one or more heaters pyrolyzes at least some hydrocarbons within the part of the formation. A blending agent may be produced from the part of the formation, wherein a mixture produced with the blending agent has at least one selected property.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2004:54723 USPATFULL  
TI In situ production of a blending agent from a hydrocarbon containing formation  
IN Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
Karanikas, John Michael, Houston, TX, UNITED STATES  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
Sumnu-Dindoruk, Meliha Deniz, Houston, TX, UNITED STATES  
Vinegar, Harold J., Bellaire, TX, UNITED STATES  
PI US 2004040715 A1 20040304  
US 7086465 B2 20060808  
AI US 2002-279227 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX, 77252-2463  
CLMN Number of Claims: 8960  
ECL Exemplary Claim: 1  
DRWN 440 Drawing Page(s)  
LN.CNT 64262  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 3 OF 16 USPATFULL on STN

AB In an embodiment, a system may be used to heat a hydrocarbon containing formation. The system may include a conduit placed within an opening in the formation. A conductor may be placed within the conduit. The conductor may provide heat to a portion of the formation. In some embodiments, an electrically conductive material may be coupled to a portion of the conductor in the overburden. The electrically conductive material may lower the electrical resistance of the portion of the conductor in the overburden. Lowering the electrical resistance of the portion of the conductor in the overburden may reduce the heat output of the portion in the overburden. The system may allow heat to transfer from the conductor to a section of the formation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2004:28518 USPATFULL  
TI In situ recovery from a hydrocarbon containing formation using conductor-in-conduit heat sources with an electrically conductive material in the overburden  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Bass, Ronald Marshall, Houston, TX, UNITED STATES  
PI US 2004020642 A1 20040205  
US 7165615 B2 20070123  
AI US 2002-279288 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)  
DT Utility  
FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8949

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 61952

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 4 OF 16 USPATFULL on STN

AB A method for treating lean and rich zones of a hydrocarbon containing formation is provided. In one embodiment, heat from one or more heaters may be provided to at least a portion of the formation. Heat may be allowed to transfer from the one or more heaters to a first part of the formation. In certain embodiments, the heat from the one or more heaters may pyrolyze at least some hydrocarbons within the first part of the formation. The method may include producing a mixture through a second part of the formation. In some embodiments, the produced mixture may include at least some pyrolyzed hydrocarbons from the first part of the formation. In an embodiment, the second part of the formation may have a higher permeability than the first part of the formation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:292384 USPATFULL

TI In situ recovery from lean and rich zones in a hydrocarbon containing formation

IN Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Houston, TX, UNITED STATES  
Vinegar, Harold J., Bellaire, TX, UNITED STATES

PI US 2003205378 A1 20031106

US 7066257 B2 20060627

AI US 2002-279222 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)

US 2001-337136P 20011024 (60)

US 2002-374970P 20020424 (60)

US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8958

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 64278

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 5 OF 16 USPATFULL on STN

AB Systems and methods of using a computer system to simulate a process for in situ treatment of a hydrocarbon containing formation are provided. The in situ process may include providing heat from one or more heat sources to at least one portion of the formation. The in situ process may, in some embodiments, include allowing the heat to transfer from the one or more heat sources to a selected section of the formation. In some embodiments, the method may include operating the in situ process using one or more operating parameters. At least one operating parameter of the in situ process may be provided to the computer system. In certain embodiments, at least one parameter may be used with a simulation method and the computer system to provide assessed information about the in situ process.

AN 2003:286356 USPATFULL

TI In situ recovery from a hydrocarbon containing formation using one or

more simulations

IN Karanikas, John Michael, Houston, TX, UNITED STATES  
 Berchenko, Ilya Emil, Friendswood, TX, UNITED STATES  
 Rouffignac, Eric Pierre de, Houston, TX, UNITED STATES  
 Ginestra, Jean-Charles, Richmond, TX, UNITED STATES  
 Hansen, Kirk Samuel, Houston, TX, UNITED STATES  
 Schoeling, Lanny Gene, Katy, TX, UNITED STATES  
 Shahin, Gordon Thomas, JR., Bellaire, TX, UNITED STATES  
 Sumnu-Dindoruk, Meliha Deniz, Houston, TX, UNITED STATES  
 Vinegar, Harold J., Bellaire, TX, UNITED STATES

PI US 2003201098 A1 20031030

AI US 2002-279224 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)  
 US 2001-337136P 20011024 (60)  
 US 2002-374970P 20020424 (60)  
 US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
 77252-2463

CLMN Number of Claims: 8961

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 64206

L9 ANSWER 6 OF 16 USPATFULL on STN

AB A method for treating a hydrocarbon containing formation is provided. In one embodiment, heat from one or more heaters may be provided to at least a portion of the formation. Heat may be allowed to transfer from the one or more heaters to at least a part of the formation. In certain embodiments, the heat from the one or more heaters may pyrolyze at least some hydrocarbons in the formation. In an embodiment, a first fluid may be introduced into at least a portion of the formation. The portion may have previously undergone an in situ conversion process. A mixture of the first fluid and a second fluid may be produced from the formation. Such mixture may, in some embodiments, be treated or burned.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:280476 USPATFULL

TI Treatment of a hydrocarbon containing formation after heating

IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
 Rouffignac, Eric Pierre de, Houston, TX, UNITED STATES  
 Madgavkar, Ajay Madhav, Katy, TX, UNITED STATES  
 Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
 McKinzie,, Billy John, II, Houston, TX, UNITED STATES  
 Palfreyman, Bruce Donald, Houston, TX, UNITED STATES  
 Ryan, Robert Charles, Houston, TX, UNITED STATES  
 Stegemeier, George Leo, Houston, TX, UNITED STATES  
 Ward, John Michael, Katy, TX, UNITED STATES  
 Wellington, Scott Lee, Bellaire, TX, UNITED STATES

PI US 2003196810 A1 20031023  
 US 7128153 B2 20061031

AI US 2002-279294 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)  
 US 2001-337136P 20011024 (60)  
 US 2002-374970P 20020424 (60)  
 US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
 77252-2463

CLMN Number of Claims: 8961  
ECL Exemplary Claim: 1  
DRWN 440 Drawing Page(s)  
LN.CNT 64261  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 7 OF 16 USPATFULL on STN

AB A process for producing hydrocarbons through a heater wellbore positioned in a hydrocarbon containing formation. The in situ treatment process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed, in some embodiments, to transfer from one or more heaters to a selected section of the formation. Heat that is allowed to transfer to the selected section may pyrolyze at least some of the hydrocarbons within the selected section. The process may include, in some embodiments, selectively limiting a temperature proximate a selected portion of a heater wellbore to inhibit coke formation at or near the selected portion. In some embodiments fluids may be produced at certain locations of a heater wellbore such that coke formation is inhibited.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:280467 USPATFULL  
TI In situ thermal processing of a hydrocarbon containing formation via backproducing through a heater well  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Den Haag, NETHERLANDS  
Karanikas, John Michael, Houston, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
PI US 2003196801 A1 20031023  
US 6932155 B2 20050823  
AI US 2002-279221 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8959  
ECL Exemplary Claim: 1  
DRWN 440 Drawing Page(s)  
LN.CNT 64277  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 8 OF 16 USPATFULL on STN

AB An in situ treatment process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed to transfer from the one or more heaters to a part of the formation. A fluid may be produced from at least part of the formation. Heat and/or other products in or from fluids produced from the formation may be used for hydrotreating.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:280455 USPATFULL  
TI In situ thermal processing of a hydrocarbon containing formation and upgrading of produced fluids prior to further treatment  
IN Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
Madgavkar, Ajay Madhav, Katy, TX, UNITED STATES  
Ryan, Robert Charles, Houston, TX, UNITED STATES  
PI US 2003196789 A1 20031023

AI US 2002-279226 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8938  
ECL Exemplary Claim: 1  
DRWN 440 Drawing Page(s)  
LN.CNT 64174  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 9 OF 16 USPATFULL on STN

AB A method for treating a hydrocarbon containing formation is provided. In one embodiment, heat from one or more heaters may be provided to at least a portion of the formation. Heat may be allowed to transfer from the one or more heaters to at least a part of the formation. In certain embodiments, the heat from the one or more heaters may pyrolyze at least some hydrocarbons within the formation. In an embodiment, a first fluid may be introduced into at least a portion of the formation. The portion may have previously undergone an in situ conversion process. A mixture of the first fluid and a second fluid (or a second compound) may be produced from the formation. In some embodiments, a first fluid may be provided to the formation prior to pyrolyzing hydrocarbons in the formation, and a second fluid (or a second compound) may be produced prior to pyrolyzing hydrocarbons in the formation. In some embodiments the second fluid or second compound include minerals, metals, salts, or other compounds that may be recovered.

AN 2003:280454 USPATFULL

TI Producing hydrocarbons and non-hydrocarbon containing materials when treating a hydrocarbon containing formation

IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Den Haag, NETHERLANDS  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
Schoeling, Lanny Gene, Katy, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES

PI US 2003196788 A1 20031023  
US 7100994 B2 20060905  
AI US 2002-279229 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)

DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8932  
ECL Exemplary Claim: 1  
DRWN 440 Drawing Page(s)  
LN.CNT 64202

L9 ANSWER 10 OF 16 USPATFULL on STN

AB A process for utilizing the heat from fluids produced from a hydrocarbon containing formation, which has been treated in situ. The in situ treatment process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed to transfer

from one or more heaters to a part of the formation such that heat from the one or more heaters pyrolyzes at least some hydrocarbons within the part of the formation. Hydrocarbons may be produced from the formation. In an embodiment, heat from the produced fluids may be used for other processes. Examples of other processes may include, but are not limited to, hydrotreating, separations, steam cracking, olefin production, etc.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:274680 USPATFULL  
TI In situ thermal processing of a hydrocarbon containing formation to produce heated fluids  
IN Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
PI US 2003192693 A1 20031016  
US 7090013 B2 20060815  
AI US 2002-279290 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX, 77252-2463  
CLMN Number of Claims: 8951  
ECL Exemplary Claim: 1  
DRWN 440 Drawing Page(s)  
LN.CNT 64242

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 11 OF 16 USPATFULL on STN  
AB A method is described for inhibiting migration of fluids into and/or out of a treatment area undergoing an in situ conversion process. Barriers in the formation proximate a treatment area may be used to inhibit migration of fluids. Inhibition of migration of fluids may occur before, during, and/or after an in situ treatment process. For example, migration of fluids may be inhibited while heat is provided from heaters to at least a portion of the treatment area. Barriers may include naturally occurring portions (e.g., overburden, and/or underburden) and/or installed portions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:274678 USPATFULL  
TI In situ recovery from a hydrocarbon containing formation using barriers  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Aymond, Dannie Antoine, JR., Houston, TX, UNITED STATES  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
McKinzie,, Billy J., II, Houston, TX, UNITED STATES  
Palfreyman, Bruce Donald, Houston, TX, UNITED STATES  
Stegemeier, George Leo, Houston, TX, UNITED STATES  
Ward, John Michael, Katy, TX, UNITED STATES  
Watkins, Ronnie Wade, Cypress, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
PI US 2003192691 A1 20031016  
US 7077198 B2 20060718  
AI US 2002-279291 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)  
DT Utility  
FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8958

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 64262

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 12 OF 16 USPATFULL on STN

AB In an embodiment, a method for heating a hydrocarbon containing formation may include providing heat from one or more heaters to an opening in the formation. A first end of the opening may contact the earth's surface at a first location and a second end of the opening may contact the earth's surface at a second location. The heat may be allowed to transfer from the opening to at least a part of the formation. The transferred heat may pyrolyze at least some hydrocarbons in the formation. In certain embodiments, providing the heat to the opening may include providing heat, heated materials, and/or oxidation products from at least one heater to the opening.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:262390 USPATFULL

TI Methods and systems for heating a hydrocarbon containing formation in situ with an opening contacting the earth's surface at two locations

IN Veenstra, Peter, Sugarland, TX, UNITED STATES  
de Rouffignac, Eric Pierreus, Houston, TX, UNITED STATES  
Karanikas, John Michael, Houston, TX, UNITED STATES  
Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES

PI US 2003183390 A1 20031002

US 7063145 B2 20060620

AI US 2002-279292 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)

US 2001-337136P 20011024 (60)

US 2002-374970P 20020424 (60)

US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8960

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 64277

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 13 OF 16 USPATFULL on STN

AB In an embodiment, a method of treating a kerogen and liquid hydrocarbon containing formation in situ may include providing heat from one or more heat sources to at least a portion of the formation. Heat may be allowed to transfer from the one or more heat sources to a part of the formation. In some embodiments, at least a portion of liquid hydrocarbons in the part may be mobilized. At least a portion of kerogen in the part may be pyrolyzed. In certain embodiments, a pressure within at least a part of the formation may be controlled. The pressure may be controlled to be at least about 2.0 bars absolute. A mixture may be produced from the formation.

AN 2003:255151 USPATFULL

TI In situ recovery from a kerogen and liquid hydrocarbon containing formation



IN Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
Berchenko, Ilya Emil, Friendswood, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Houston, TX, UNITED STATES  
Karanikas, John Michael, Houston, TX, UNITED STATES  
Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
Zhang, Etuan, Houston, TX, UNITED STATES  
PI US 2003178191 A1 20030925  
US 7011154 B2 20060314  
AI US 2002-279287 A1 20021024 (10)  
PRAI US 2001-337427P 20011024 (60)  
US 2001-337405P 20011024 (60)  
US 2002-375043P 20020424 (60)  
US 2002-374999P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8600  
ECL Exemplary Claim: 1  
DRWN 289 Drawing Page(s)  
LN.CNT 58114

L9 ANSWER 14 OF 16 USPATFULL on STN

AB A method for treating a coal formation to alter properties of coal in the formation is provided. In one embodiment, heat from one or more heaters may be provided to at least a portion of the formation. Heat may be allowed to transfer from the one or more heaters to a part of the formation. In certain embodiments, the heat from the one or more heaters may pyrolyze at least some hydrocarbons within the part of the formation. The method may include producing a fluid from the formation. In some embodiments, the produced fluid may include at least some pyrolyzed hydrocarbons from the formation. In an embodiment, after at least some coal has been treated at least a portion of such coal may be produced from the formation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:248308 USPATFULL  
TI Upgrading and mining of coal  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
PI US 2003173085 A1 20030918  
US 6969123 B2 20051129  
AI US 2002-279286 A1 20021024 (10)  
PRAI US 2001-338648P 20011024 (60)  
US 2001-337137P 20011024 (60)  
US 2002-375000P 20020424 (60)  
US 2002-374996P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8593  
ECL Exemplary Claim: 1  
DRWN 305 Drawing Page(s)  
LN.CNT 57197

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 15 OF 16 USPATFULL on STN

AB A method for forming one or more openings in a hydrocarbon containing

formation is described. The method may include forming or providing a first opening in the formation. A plurality of magnets may be provided into the first opening. The plurality of magnets may be positioned along a portion of the first opening. The plurality of magnets may produce a series of magnetic fields along the portion of the first opening. A second opening in the formation may be formed using magnetic tracking of the series of magnetic fields. The second opening may be spaced a desired distance from the first opening. Alternate embodiments include use of an energized conduit to create a magnetic field. Such energized conduit can be used alone or with the plurality of magnets.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:248295 USPATFULL  
TI Forming openings in a hydrocarbon containing formation using magnetic tracking  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Harris, Christopher Kelvin, Houston, TX, UNITED STATES  
Hartmann, Robin Adrianus, Rijswijk, NETHERLANDS  
Pratt, Christopher Arnold, Cochrane, CANADA  
Lepper, Gordon Bruce, Calgary, CANADA  
Wagner, Randolph Rogers, Houston, TX, UNITED STATES  
PI US 2003173072 A1 20030918  
US 6991045 B2 20060131  
AI US 2002-279289 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX, 77252-2463  
CLMN Number of Claims: 8962  
ECL Exemplary Claim: 1  
DRWN 441 Drawing Page(s)  
LN.CNT 64274

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 16 OF 16 USPATFULL on STN

AB An in situ process for treating a tar sands formation is provided. The process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed to transfer from the one or more heaters to a part of the formation such that heat from the one or more heat sources pyrolyzes at least some hydrocarbons within the part. Hydrocarbons may be produced from the formation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:223310 USPATFULL  
TI In situ thermal processing of a tar sands formation  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Den Haag, NETHERLANDS  
Karanikas, John Michael, Houston, TX, UNITED STATES  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
Sumnu-Dindoruk, Meliha Deniz, Houston, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
Crane, Steven Dexter, Richardson, TX, UNITED STATES  
Messier, Margaret Ann, Calgary, CANADA  
Roberts, Bruce Edmunds, Calgary, CANADA  
PI US 2003155111 A1 20030821  
US 7066254 B2 20060627  
AI US 2002-279225 A1 20021024 (10)

PRAI US 2001-337072P 20011024 (60)  
US 2001-337059P 20011024 (60)  
US 2002-375018P 20020424 (60)  
US 2002-375238P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8319  
ECL Exemplary Claim: 1  
DRWN 372 Drawing Page(s)  
LN.CNT 58044  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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